```
================================================================
Sequence Listing could not be accepted due to errors.
See attached Validation Report.
If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).
Reviewer: markspencer
Timestamp: [year=2008; month=7; day=18; hr=15; min=3; sec=33; ms=27; ]
================================================================
```

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*************************************************************
Reviewer Comments:
This is not the proper format for a sequence listing. Please follow the
example given in the MPEP section 2431 and follow the sequence rules
provided in sections 2420 to 2431.
*************************************************************
```

Validated By CRFValidator v 1.0.3

Application No: 10567091   Version No: 1.0

Input Set:

Output Set:

Started: 2008-07-01 16:09:38.170
Finished: 2008-07-01 16:09:54.408
Elapsed: 0 hr(s) 0 min(s) 16 sec(s) 238 ms
Total Warnings: 9125
Total Errors: 213
No. of SeqIDs Defined: 0
Actual SeqID Count: 0

Error code	Error Description
E 287	Invalid WIPO ST.2 date format; Use (YYYY-MM-DD) in <141>
E 287	Invalid WIPO ST.2 date format; Use (YYYY-MM-DD)in <151>
E 248	Order Sequence Error <151> -> <213>; Expected Mandatory Tag: <210> in Header
W 402	Undefined organism found in <213> in SEQ ID (0)
E 202	Invalid input format; Value must be an integer in <400> SEQID: (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
E 248	Order Sequence Error <212> -> <211>; Expected Mandatory Tag: <213> in Header
E 202	Invalid input format; Value must be an integer in <211> in SEQ ID
E 248	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in Header
W 402	Undefined organism found in <213> in SEQ ID (0)
E 202	Invalid input format; Value must be an integer in <400> SEQID: (0)
W 112	Upper case found in data; Found at position(0) SeqId(0)
W 112	Upper case found in data; Found at position(1) SeqId(0)
W 112	Upper case found in data; Found at position(2) SeqId(0)
W 112	Upper case found in data; Found at position(3) SeqId(0)
W 112	Upper case found in data; Found at position(4) SeqId(0)
W 112	Upper case found in data; Found at position(5) SeqId(0)
W 112	Upper case found in data; Found at position(6) SeqId(0)

```
                Input Set:


                Output Set:



              Started:    2008-07-01 16:09:38.170
             Finished:    2008-07-01 16:09:54.408
              Elapsed:    0 hr(s) 0 min(s) 16 sec(s) 238 ms
       Total Warnings:    9125
         Total Errors:    213
 No. of SeqIDs Defined:   0
    Actual SeqID Count:   0
```

Error code		Error Description
W	112	Upper case found in data; Found at position(7) SeqId(0)
W	112	Upper case found in data; Found at position(8) SeqId(0)
W	112	Upper case found in data; Found at position(9) SeqId(0)
W	112	Upper case found in data; Found at position(10) SeqId(0)
W	112	Upper case found in data; Found at position(11) SeqId(0)
W	112	Upper case found in data; Found at position(12) SeqId(0)
W	112	Upper case found in data; Found at position(13) SeqId(0)
W	112	Upper case found in data; Found at position(14) SeqId(0)
W	112	Upper case found in data; Found at position(15) SeqId(0)
W	112	Upper case found in data; Found at position(16) SeqId(0)
W	112	Upper case found in data; Found at position(17) SeqId(0)
W	112	Upper case found in data; Found at position(18) SeqId(0)
W	112	Upper case found in data; Found at position(19) SeqId(0) This error has occured more than 20 times, will not be displayed
E	310	Invalid sequence type in <212> in SEQID: (0)
E	248	Order Sequence Error <212> -> <211>; Expected Mandatory Tag: <213> in Header
E	202	Invalid input format; Value must be an integer in <211> in SEQ ID
E	248	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in Header
W	402	Undefined organism found in <213> in SEQ ID (0)
E	202	Invalid input format; Value must be an integer in <400> SEQID: (0)
E	310	Invalid sequence type in <212> in SEQID: (0)
E	248	Order Sequence Error <212> -> <211>; Expected Mandatory Tag: <213>

```
                    Input Set:


                    Output Set:



               Started:   2008-07-01 16:09:38.170
              Finished:   2008-07-01 16:09:54.408
               Elapsed:   0 hr(s) 0 min(s) 16 sec(s) 238 ms
       Total Warnings:    9125
         Total Errors:    213
  No. of SeqIDs Defined:  0
    Actual SeqID Count:   0
```

Error code	Error Description
E 202	Invalid input format; Value must be an integer in <211> in SEQ ID
E 248	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in Header
W 402	Undefined organism found in <213> in SEQ ID (0)
E 202	Invalid input format; Value must be an integer in <400> SEQID: (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
E 248	Order Sequence Error <212> -> <211>; Expected Mandatory Tag: <213> in Header
E 202	Invalid input format; Value must be an integer in <211> in SEQ ID
E 248	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in Header
W 402	Undefined organism found in <213> in SEQ ID (0)
E 202	Invalid input format; Value must be an integer in <400> SEQID: (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
E 248	Order Sequence Error <212> -> <211>; Expected Mandatory Tag: <213> in Header
E 202	Invalid input format; Value must be an integer in <211> in SEQ ID
E 248	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in Header
W 402	Undefined organism found in <213> in SEQ ID (0)
E 202	Invalid input format; Value must be an integer in <400> SEQID: (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
E 248	Order Sequence Error <212> -> <211>; Expected Mandatory Tag: <213> in Header
E 202	Invalid input format; Value must be an integer in <211> in SEQ ID

```
            Input Set:


            Output Set:



            Started:    2008-07-01 16:09:38.170
           Finished:    2008-07-01 16:09:54.408
            Elapsed:    0 hr(s) 0 min(s) 16 sec(s) 238 ms
     Total Warnings:    9125
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No. of SeqIDs Defined:  0
  Actual SeqID Count:   0
```

Error code	Error Description
E 248	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in Header
W 402	Undefined organism found in <213> in SEQ ID (0)
E 202	Invalid input format; Value must be an integer in <400> SEQID: (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
E 248	Order Sequence Error <212> -> <211>; Expected Mandatory Tag: <213> in Header
E 202	Invalid input format; Value must be an integer in <211> in SEQ ID
E 248	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in Header
W 402	Undefined organism found in <213> in SEQ ID (0)
E 202	Invalid input format; Value must be an integer in <400> SEQID: (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
E 248	Order Sequence Error <212> -> <211>; Expected Mandatory Tag: <213> in Header
E 202	Invalid input format; Value must be an integer in <211> in SEQ ID
E 248	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in Header
W 402	Undefined organism found in <213> in SEQ ID (0)
E 202	Invalid input format; Value must be an integer in <400> SEQID: (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
E 248	Order Sequence Error <212> -> <211>; Expected Mandatory Tag: <213> in Header
E 202	Invalid input format; Value must be an integer in <211> in SEQ ID
E 248	Order Sequence Error <211> -> <213>; Expected Mandatory Tag: <212> in Header

```
              Input Set:


              Output Set:



            Started:   2008-07-01 16:09:38.170
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Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (0)
E 202	Invalid input format; Value must be an integer in <400> SEQID: (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
E 248	Order Sequence Error <212> -> <211>; Expected Mandatory Tag: <213> in Header This error has occured more than 20 times, will not be displayed
E 202	Invalid input format; Value must be an integer in <211> in SEQ ID (0)
W 402	Undefined organism found in <213> in SEQ ID (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
W 402	Undefined organism found in <213> in SEQ ID (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
W 402	Undefined organism found in <213> in SEQ ID (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
W 402	Undefined organism found in <213> in SEQ ID (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
W 402	Undefined organism found in <213> in SEQ ID (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
W 402	Undefined organism found in <213> in SEQ ID (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
W 402	Undefined organism found in <213> in SEQ ID (0)
E 310	Invalid sequence type in <212> in SEQID: (0)
W 402	Undefined organism found in <213> in SEQ ID (0)
E 310	Invalid sequence type in <212> in SEQID: (0)

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              Input Set:


             Output Set:


                 Started:   2008-07-01 16:09:38.170
                Finished:   2008-07-01 16:09:54.408
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         Total Warnings:    9125
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      Actual SeqID Count:   0
```

Error code   Error Description

```
W   402      Undefined organism found in <213>  in SEQ ID (0)

E   310      Invalid sequence type in <212> in SEQID: (0)

W   402      Undefined organism found in <213>  in SEQ ID (0)
              This error has occured more than 20 times, will not be displayed

E   310      Invalid sequence type in <212> in SEQID: (0)
              This error has occured more than 20 times, will not be displayed
```

```
Organization Applicant
----------------------
      Street :
      City :
      State :
      Country :
      PostalCode :
      PhoneNumber :
      FaxNumber :
      EmailAddress :
<110> OrganizationName : Max-Planck-Gesellschaft


Application Project
-------------------
<120> Title : Novel genetically encoded bioindicators of calcium-ions
<130> AppFileReference : G62276PC
<140> CurrentAppNumber :
<141> CurrentFilingDate : ____-__-__


Earlier Applications
--------------------
<150> PriorAppNumber : EP 03016691.2
<151> PriorFilingDate : 2003-08-04


Sequence
--------
<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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ggcgacgtaa acggccacag gttcagcgtg tccggcgagg gcgagggcga tgccacctac       120

ggcaagctga ccctgaagtt catctgcacc accggcaagc tgcccgtgcc ctggcccacc       180

ctcgtgacca ccctgacctg gggcgtgcag tgcttcagcc gctaccccga ccacatgaag       240

cagcacgact tcttcaagtc cgccatgccc gaaggctacg tccaggagcg taccatcttc       300

ttcaaggacg acggcaacta caagacccgc gccgaggtga agttcgaggg cgacaccctg       360

gtgaaccgca tcgagctgaa gggcatcgac ttcaaggagg acggcaacat cctggggcac       420

aagctggagt acaactacat cagccacaac gtctatatca ccgccgacaa gcagaagaac       480

ggcatcaagg cccacttcaa gatccgccac aacatcgagg acggcagcgt gcagctcgcc       540

gaccactacc agcagaacac ccccatcggc gacggccccg tgctgctgcc cgacaaccac       600

tacctgagca cccagtccgc cctgagcaaa gaccccaacg agaagcgcga tcacatggtc       660

ctgctggagt tcgtgaccgc cgcccgcatg ctcagcgagg agatgattgc tgagttcaaa       720

gctgcctttg acatgtttga tgcggacggt ggtgggggaca tcagcaccaa ggagttgggc      780

acggtgatga ggatgctggg ccagaacccc accaaagagg agctggatgc catcatcgag       840

gaggtggacg aggatggcag cggcaccatc gacttcgagg agttcctggt gatgatggtg       900
```

```
cgccagatga aagaggacgc caagggcaag tctgaggagg agctggccaa ctgcttccgc        960

atcttcgaca agaacgctga tgggttcatc gacatcgagg agctgggtga gattctcagg        1020

gccactgggg agcacgtcat cgaggaggac atagaagacc tcatgaagga ttcagacaag        1080

aacaatgacg gccgcattga cttcgatgag ttcctgaaga tgatggaggg tgtgcaggag        1140

ctcatggtga gcaagggcga ggagctgttc accggggtgg tgcccatcct ggtcgagctg        1200

gacggcgacg taaacggcca caagttcagc gtgtccggcg agggcgaggg cgatgccacc        1260

tacggcaagc tgaccctgaa gttcatctgc accaccggca agctgcccgt gccctggccc        1320

accctcgtga ccaccttcgg ctacggcctg atgtgcttcg cccgctaccc cgaccacatg        1380

cgccagcacg acttcttcaa gtccgccatg cccgaaggct acgtccagga gcgcaccatc        1440

ttcttcaagg acgacggcaa ctacaagacc cgcgccgagg tgaagttcga gggcgacacc        1500

ctggtgaacc gcatcgagct gaagggcatc gacttcaagg aggacggcaa catcctgggg        1560

cacaagctgg agtacaacta caacagccac aacgtctata tcatggccga caagcagaag        1620

aacggcatca aggccaactt caagatccgc cacaacatcg aggacggcag cgtgcagctc        1680

gccgaccact accagcagaa cacccccatc ggcgacggcc ccgtgctgct gcccgacaac        1740

cactacctga gctaccagtc cgccctgagc aaagacccca cgagaagcg cgatcacatg        1800

gtcctgctgg agttcgtgac cgccgccggg atcactctcg gcatggacga gctgtacaag        1860

taa        1863
<212> Type : DNA
<211> Length : 1863
      SequenceName : TN-L15
      SequenceDescription :

Custom Codon
------------
Sequence Name : TN-L15

Sequence
--------
<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
MVSKGEELFT GVVPILVELD GDVNGHRFSV SGEGEGDATY GKLTLKFICT TGKLPVPWPT        60

LVTTLTWGVQ CFSRYPDHMK QHDFFKSAMP EGYVQERTIF FKDDGNYKTR AEVKFEGDTL        120

VNRIELKGID FKEDGNILGH KLEYNYISHN VYITADKQKN GIKAHFKIRH NIEDGSVQLA        180

DHYQQNTPIG DGPVLLPDNH YLSTQSALSK DPNEKRDHMV LLEFVTAARM LSEEMIAEFK        240

AAFDMFDADG GGDISTKELG TVMRMLGQNP TKEELDAIIE EVDEDGSGTI DFEEFLVMMV        300
```

RQMKEDAKGK SEEELANCFR IFDKNADGFI DIEELGEILR ATGEHVIEED IEDLMKDSDK   360

NNDGRIDFDE FLKMMEGVQE LMVSKGEELF TGVVPILVEL DGDVNGHKFS VSGEGEGDAT   420

YGKLTLKFIC TTGKLPVPWP TLVTTFGYGL MCFARYPDHM RQHDFFKSAM PEGYVQERTI   480

FFKDDGNYKT RAEVKFEGDT LVNRIELKGI DFKEDGNILG HKLEYNYNSH NVYIMADKQK   540

NGIKANFKIR HNIEDGSVQL ADHYQQNTPI GDGPVLLPDN HYLSYQSALS KDPNEKRDHM   600

VLLEFVTAAG ITLGMDELYK   620
<212> Type : PRT
<211> Length : 620
      SequenceName : TN-L15prot
      SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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ggcgacgtaa acggccacag gttcagcgtg tccggcgagg gcgagggcga tgccacctac   120

ggcaagctga ccctgaagtt catctgcacc accggcaagc tgcccgtgcc ctggcccacc   180

ctcgtgacca ccctgacctg gggcgtgcag tgcttcagcc gctaccccga ccacatgaag   240

cagcacgact tcttcaagtc cgccatgccc gaaggctacg tccaggagcg taccatcttc   300

ttcaaggacg acggcaacta caagacccgc gccgaggtga agttcgaggg cgacaccctg   360

gtgaaccgca tcgagctgaa gggcatcgac ttcaaggagg acggcaacat cctggggcac   420

aagctggagt acaactacat cagccacaac gtctatatca ccgccgacaa gcagaagaac   480

ggcatcaagg cccacttcaa gatccgccac aacatcgagg acggcagcgt gcagctcgcc   540

gaccactacc agcagaacac ccccatcggc gacggccccg tgctgctgcc cgacaaccac   600

tacctgagca cccagtccgc cctgagcaaa gaccccaacg agaagcgcga tcacatggtc   660

ctgctggagt tcgtgaccgc cgcccgcatg ctaatggatg acatctacaa ggctgcggta   720

gagcagctga cagaagagca gaaaaatgag ttcaaggcag ccttcgacat cttcgtgctg   780

ggcgctgagg atggctgcat cagcaccaag agctgggca aggtgatgag gatgctgggc   840

cagaacccca cccctgagga gctgcaggag atgatcgatg aggtggacga ggacggcagc   900

ggcacggtgg actttgatga gttcctggtc atgatggttc ggtgcatgaa ggacgacagc   960

aaagggaaat ctgaggagga gctgtctgac ctcttccgca tgtttgacaa aaatgctgat   1020

ggctacatcg acctggatga gctgaagata atgctgcagg ctacaggcga gaccatcacg   1080

gaggacgaca tcgaggaact catgaaggac ggagacaaga caacgacggg ccgcatcgac   1140

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tatgatgagt tcctggagtt catgaagggt gtggaggagc tcatggtgag caagggcgag      1200

gagctgttca ccggggtggt gcccatcctg gtcgagctgg acggcgacgt aaacggccac      1260

aagttcagcg tgtccggcga gggcgagggc gatgccacct acggcaagct gaccctgaag      1320

ttcatctgca ccaccggcaa gctgcccgtg ccctggccca ccctcgtgac caccttcggc      1380

tacggcctga tgtgcttcgc ccgctacccc gaccacatgc gccagcacga cttcttcaag      1440

tccgccatgc ccgaaggcta cgtccaggag cgcaccatct tcttcaagga cgacggcaac      1500

tacaagaccc gcgccgaggt gaagttcgag ggcgacaccc tggtgaaccg catcgagctg      1560

aagggcatcg acttcaagga ggacggcaac atcctggggc acaagctgga gtacaactac      1620

aacagccaca cgtctatat catggccgac aagcagaaga cggcatcaa ggccaacttc      1680

aagatccgcc acaacatcga ggacggcagc gtgcagctcg ccgaccacta ccagcagaac      1740

accccatcg gcgacggccc cgtgctgctg cccgacaacc actacctgag ctaccagtcc      1800

gccctgagca agacccccaa cgagaagcgc gatcacatgg tcctgctgga gttcgtgacc      1860

gccgccggga tcactctcgg catggacgag ctgtacaagt aa                        1902
<212> Type : DNA
<211> Length : 1902
        SequenceName : TN-humTC
        SequenceDescription :

Custom Codon
------------
Sequence Name : TN-humTC

Sequence
--------
<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
MVSKGEELFT GVVPILVELD GDVNGHRFSV SGEGEGDATY GKLTLKFICT TGKLPVPWPT        60

LVTTLTWGVQ CFSRYPDHMK QHDFFKSAMP EGYVQERTIF FKDDGNYKTR AEVKFEGDTL       120

VNRIELKGID FKEDGNILGH KLEYNYISHN VYITADKQKN GIKAHFKIRH NIEDGSVQLA       180

DHYQQNTPIG DGPVLLPDNH YLSTQSALSK DPNEKRDHMV LLEFVTAARM LMDDIYKAAV       240

EQLTEEQKNE FKAAFDIFVL GAEDGCISTK ELGKVMRMLG QNPTPEELQE MIDEVDEDGS       300

GTVDFDEFLV MMVRCMKDDS KGKSEEELSD LFRMFDKNAD GYIDLDELKI MLQATGETIT       360

EDDIEELMKD GDKNNDGRID YDEFLEFMKG VEELMVSKGE ELFTGVVPIL VELDGDVNGH       420

KFSVSGEGEG DATYGKLTLK FICTTGKLPV PWPTLVTTFG YGLMCFARYP DHMRQHDFFK       480

SAMPEGYVQE RTIFFKDDGN YKTRAEVKFE GDTLVNRIEL KGIDFKEDGN ILGHKLEYNY       540
```

NSHNVYIMAD KQKNGIKANF KIRHNIEDGS VQLADHYQQN TPIGDGPVLL PDNHYLSYQS   600

ALSKDPNEKR DHMVLLEFVT AAGITLGMDE LYK   633
<212> Type : PRT
<211> Length : 633
       SequenceName : TN-humTCprot
       SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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ggcgacgtaa acggccacag gttcagcgtg tccggcgagg gcgagggcga tgccacctac   120

ggcaagctga ccctgaagtt catctgcacc accggcaagc tgcccgtgcc ctggcccacc   180

ctcgtgacca ccctgacctg gggcgtgcag tgcttcagcc gctaccccga ccacatgaag   240

cagcacgact tcttcaagtc cgccatgccc gaaggctacg tccaggagcg taccatcttc   300

ttcaaggacg acggcaacta caagacccgc gccgaggtga agttcgaggg cgacaccctg   360

gtgaaccgca tcgagctgaa gggcatcgac ttcaaggagg acggcaacat cctggggcac   420

aagctggagt acaactacat cagccacaac gtctatatca ccgccgacaa gcagaagaac   480

ggcatcaagg cccacttcaa gatccgccac aacatcgagg acggcagcgt gcagctcgcc   540

gaccactacc agcagaacac ccccatcggc gacggccccg tgctgctgcc cgacaaccac   600

tacctgagca cccagtccgc cctgagcaaa gaccccaacg agaagcgcga tcacatggtc   660

ctgctggagt tcgtgaccgc cgcccgcatg ctcagcgagg agatgattgc tgagttcaaa   720

gctgcctttg acatgtttga tgcggacggt ggtggggaca tcagcaccaa ggagttgggc   780

acggtgatga ggatgctggg ccagaacccc accaaagagg agctggatgc catcatcgag   840

gaggtggacg aggatggcag cggcaccatc gacttcgagg agttcctggt gatgatggtg   900

cgccagatga agaggacgc caagggcaag tctgaggagg agctggccaa ctgcttccgc   960

atcttcgcca agaacgctga tggttcatc gacatcgagg agctgggtga gattctcagg   1020

gccactgggg agcacgtcat cgaggaggac atagaagacc tcatgaagga ttcagacaag   1080

aacaatgacg gccgcattga cttcgatgag ttcctgaaga tgatggaggg tgtgcaggag   1140

ctcatggtga gcaagggcga ggagctgttc accggggtgg tgcccatcct ggtcgagctg   1200

gacggcgacg taaacggcca agttcagc gtgtccggcg agggcgaggg cgatgccacc   1260

tacggcaagc tgaccctgaa gttcatctgc accaccggca agctgcccgt gccctggccc   1320

accctcgtga ccaccttcgg ctacggcctg atgtgcttcg cccgctaccc cgaccacatg   1380

```
cgccagcacg acttcttcaa gtccgccatg cccgaaggct acgtccagga gcgcaccatc      1440

ttcttcaagg acgacggcaa ctacaagacc cgcgccgagg tgaagttcga gggcgacacc      1500

ctggtgaacc gcatcgagct gaagggcatc gacttcaagg aggacggcaa catcctgggg      1560

cacaagctgg agtacaacta caacagccac aacgtctata tcatggccga caagcagaag      1620

aacggcatca aggccaactt caagatccgc cacaacatcg aggacggcag cgtgcagctc      1680

gccgaccact accagcagaa cacccccatc ggcgacggcc ccgtgctgct gcccgacaac      1740

cactacctga gctaccagtc cgccctgagc aaagacccca cgagaagcg cgatcacatg       1800

gtcctgctgg agttcgtgac cgccgccggg atcactctcg gcatggacga gctgtacaag      1860

taa                                                                     1863
<212> Type : DNA
<211> Length : 1863
      SequenceName : TN-L15 D107A
      SequenceDescription :

Custom Codon
------------
Sequence Name : TN-L15 D107A

Sequence
--------
<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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LVTTLTWGVQ CFSRYPDHMK QHDFFKSAMP EGYVQERTIF FKDDGNYKTR AEVKFEGDTL       120

VNRIELKGID FKEDGNILGH KLEYNYISHN VYITADKQKN GIKAHFKIRH NIEDGSVQLA       180

DHYQQNTPIG DGPVLLPDNH YLSTQSALSK DPNEKRDHMV LLEFVTAARM LSEEMIAEFK       240

AAFDMFDADG GGDISTKELG TVMRMLGQNP TKEELDAIIE EVDEDGSGTI DFEEFLVMMV       300

RQMKEDAKGK SEEELANCFR IFAKNADGFI DIEELGEILR ATGEHVIEED IEDLMKDSDK       360

NNDGRIDFDE FLKMMEGVQE LMVSKGEELF TGVVPILVEL DGDVNGHKFS VSGEGEGDAT       420

YGKLTLKFIC TTGKLPVPWP TLVTTFGYGL MCFARYPDHM RQHDFFKSAM PEGYVQERTI       480

FFKDDGNYKT RAEVKFEGDT LVNRIELKGI DFKEDGNILG HKLEYNYNSH NVYIMADKQK       540

NGIKANFKIR HNIEDGSVQL ADHYQQNTPI GDGPVLLPDN HYLSYQSALS KDPNEKRDHM       600

VLLEFVTAAG ITLGMDELYK                                                    620
<212> Type : PRT
<211> Length : 620
      SequenceName : TN-L15 D107Aprot
      SequenceDescription :
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Sequence

<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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ctcgtgacca ccctgacctg gggcgtgcag tgcttcagcc gctaccccga ccacatgaag   240

cagcacgact tcttcaagtc cgccatgccc gaaggctacg tccaggagcg taccatcttc   300

ttcaaggacg acggcaacta caagacccgc gccgaggtga agttcgaggg cgacaccctg   360

gtgaaccgca tcgagctgaa gggcatcgac ttcaaggagg acggcaacat cctggggcac   420

aagctggagt acaactacat cagccacaac gtctatatca ccgccgacaa gcagaagaac   480

ggcatcaagg cccacttcaa gatccgccac aacatcgagg acggcagcgt gcagctcgcc   540

gaccactacc agcagaacac ccccatcggc gacggccccg tgctgctgcc cgacaaccac   600

tacctgagca cccagtccgc cctgagcaaa gaccccaacg agaagcgcga tcacatggtc   660

ctgctggagt tcgtgaccgc cgcccgcatg ctaatggcgt caatgacgga ccagcaggcg   720

gaggcccgcg ccttcctcag cgaggagatg attgctgagt tcaaagctgc ctttgacatg   780

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ctgggccaga acccaccaa agaggagctg gatgccatca tcgaggaggt ggacgaggat   900

ggcagcggca ccatcgactt cgaggagttc ctggtgatga tggtgcgcca gatgaaagag   960

gacgccaagg gcaagtctga ggaggagctg gccaactgct ccgcatctt cgacaagaac   1020

gctgatgggt tcatcgacat cgaggagctg ggtgagattc tcagggccac tgggggagcac   1080

gtcatcgagg aggacataga agacctcatg aaggattcag acaagaacaa tgacggccgc   1140

attgacttcg atgagttcct gaagatgatg gagggtgtgc aggagctcat ggtgagcaag   1200

ggcgaggagc tgttcaccgg ggtggtgccc atcctggtcg agctggacgg cgacgtaaac   1260

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ctgaagttca tctgcaccac cggcaagctg cccgtgccct ggcccaccct cgtgaccacc   1380

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ggcaactaca gacccgcgc cgaggtgaag ttcgagggcg acaccctggt gaaccgcatc   1560

gagctgaagg gcatcgactt caaggaggac ggcaacatcc tggggcacaa gctggagtac   1620

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aactacaaca gccacaacgt ctatatcatg gccgacaagc agaagaacgg catcaaggcc      1680

aacttcaaga tccgccacaa catcgaggac ggcagcgtgc agctcgccga ccactaccag      1740

cagaacaccc ccatcggcga cggccccgtg ctgctgcccg acaaccacta cctgagctac      1800

cagtccgccc tgagcaaaga ccccaacgag aagcgcgatc acatggtcct gctggagttc      1860

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<212> Type : DNA
<211> Length : 1908
        SequenceName : TN-TnCfl
        SequenceDescription :

Custom Codon

Sequence Name : TN-TnCfl

Sequence

<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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MVSKGEELFT GVVPILVELD GDVNGHRFSV SGEGEGDATY GKLTLKFICT TGKLPVPWPT      60

LVTTLTWGVQ CFSRYPDHMK QHDFFKSAMP EGYVQERTIF FKDDGNYKTR AEVKFEGDTL      120

VNRIELKGID FKEDGNILGH KLEYNYISHN VYITADKQKN GIKAHFKIRH NIEDGSVQLA      180

DHYQQNTPIG DGPVLLPDNH YLSTQSALSK DPNEKRDHMV LLEFVTAARM LMASMTDQQA      240

EARAFLSEEM IAEFKAAFDM FDADGGGDIS TKELGTVMRM LGQNPTKEEL DAIIEEVDED      300

GSGTIDFEEF LVMMVRQMKE DAKGKSEEEL ANCFRIFDKN ADGFIDIEEL GEILRATGEH      360

VIEEDIEDLM KDSDKNNDGR IDFDEFLKMM EGVQELMVSK GEELFTGVVP ILVELDGDVN      420

GHKFSVSGEG EGDATYGKLT LKFICTTGKL PVPWPTLVTT FGYGLMCFAR YPDHMRQHDF      480

FKSAMPEGYV QERTIFFKDD GNYKTRAEVK FEGDTLVNRI ELKGIDFKED GNILGHKLEY      540

NYNSHNVYIM ADKQKNGIKA NFKIRHNIED GSVQLADHYQ QNTPIGDGPV LLPDNHYLSY      600

QSALSKDPNE KRDHMVLLEF VTAAGITLGM DELYK                               635
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<212> Type : PRT
<211> Length : 635
        SequenceName : TN-TnCflprot
        SequenceDescription :

Sequence

<213> OrganismName : Artificial Sequence
<400> PreSequenceString :
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ggcgacgtaa acggccacag gttcagcgtg tccggcgagg cgagggcga tgccacctac      120
```

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ggcaagctga ccctgaagtt catctgcacc accggcaagc tgcccgtgcc ctggcccacc      180

ctcgtgacca ccctgacctg gggcgtgcag tgcttcagcc gctaccccga ccacatgaag      240

cagcacgact tcttcaagtc cgccatgccc gaaggctacg tccaggagcg taccatcttc      300

ttcaaggacg acggcaacta caagacccgc gccgaggtga agttcgaggg cgacaccctg      360

gtgaaccgca tcgagctgaa gggcatcgac ttcaaggagg acggcaacat cctggggcac      420

aagctggagt acaactacat cagccacaac gtctatatca ccgccgacaa gcagaagaac      480

ggcatcaagg cccacttcaa gatccgccac aacatcgagg acggcagcgt gcagctcgcc      540

gaccactacc agcagaacac ccccatcggc gacggccccg tgctgctgcc cgacaaccac      600

tacctgagca cccagtccgc cctgagcaaa gaccccaacg agaagcgcga tcacatggtc      660

ctgctggagt tcgtgaccgc cgcccgcatg ctaggccaga accccaccaa agaggagctg      720

gatgccatca tcgaggaggt ggacgaggat ggcagcggca ccatcgactt cgaggagttc      780

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gagctgttca ccggggtggt gcccatcctg gtcgagctgg acggcgacgt aaacggccac      900

aagttcagcg tgtccggcga gggcgagggc gatgccacct acggcaagct gaccctgaag      960

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tccgccatgc ccgaaggcta cgtccaggag cgcaccatct tcttcaagga cgacggcaac     1140

tacaagaccc gcgccgaggt gaagttcgag ggcgacaccc tggtgaaccg catcgagctg     1200

aagggcatcg acttcaagga ggacggcaac atcctggggc acaagctgga gtacaactac     1260

aacagccaca cgtctatat catggccgac aagcagaaga acggcatcaa ggccaacttc     1320

aagatccgcc acaacatcga ggacggcagc gtgcagctcg ccgaccacta ccagcagaac     1380

accccatcg gcgacggccc cgtgctgctg cccgacaacc actacctgag ctaccagtcc     1440

gccctgagca agacccccaa cgagaagcgc gatcacatgg tcctgctgga gttcgtgacc
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